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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,621	03/24/2004	Anand Ganesh Dabak	TI-28940.1	6084
23494	7590	10/10/2006	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED			GHULAMALI, QUTBUDDIN	
P O BOX 655474, M/S 3999			ART UNIT	
DALLAS, TX 75265			PAPER NUMBER	
			2611	

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/808,621	<b>Applicant(s)</b> DABAK ET AL.	
	<b>Examiner</b> Qutub Ghulamali	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10-12 and 25-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10 and 25, 27-31 is/are rejected.
- 7) ☒ Claim(s) 11, 12 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

1. This office action is in response to applicant's arguments/remarks filed 07/10/2006.

### ***Response to Remarks/Amendments***

2. Applicant's remarks/amendments with respect to claims 10-12 have been considered but are moot in view of the new ground(s) of rejection. The newly added claims 25-31 (corresponding previous claims 14-20) are rejected. The rejection follows.

### ***Claim Objections***

3. As noted in the previous office action dated 01/23/2006, the claim 12 is objected to because of the following informalities: Claim 12, line 4, recites, "producing less". It is not clear what is being "produced less" than the plurality of channel estimates. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by the applicant's admitted prior art.

Regarding claim 10, Feldman discloses a method of processing signals in a communication system comprising:

receiving an input signal from at least one of a plurality of antennas (col. 2, lines 44-53; col. 3, lines 18-22; col. 4, lines 60-64),

measuring the input signal (col. 2, lines 7-22, 50-53);

producing an output signal corresponding to the measured input signal (col. 2, lines 50-54);

comparing the output signal to a first reference signal (col. 2, lines 53-59);

producing a first control signal in response to the step of comparing when the output signal has a value greater than a value of the first reference signal (col. 2, lines 50-63);

comparing the output to a second reference signal (col. 2, lines 55-63); and

producing a second control signal in response to the step of comparing when the output signal has a value greater than a value of the second reference signal (col. 2, lines 55-63; col. 3, lines 18-38).

6. Claims 25-31 are rejected under 35 U.S.C. 102(b) as being anticipated by the applicant's admitted prior art.

Regarding claims 25 and 29, the prior art discloses an estimate circuit coupled to receive an input signal from at least one of a plurality of transmit antennas and coupled to receive a control signal, the control signal corresponding to a number of the at least one of a plurality of transmit antennas, the estimate circuit selectively producing a first

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estimate signal and a second estimate signal in response to the control signal (page 6, lines 16-26);

a correction circuit coupled to receive the input signal, the first estimate signal and the second estimate signal, the correction circuit producing a corrected input signal (page 6, lines 23-26);

a combiner circuit coupled to receive the corrected input signal, the combiner circuit producing a combined input signal (summed) (page 5, lines 19-24; page 6, lines 27-28; page 7, lines 1-9); and

a decoder circuit (406) coupled to receive the combined input signal, the decoder circuit arranged to decode the combined input signal, thereby producing the control signal (page 5, lines 22-25).

As per claim 27, the prior art further discloses (fig. 3) a plurality of pilot symbols (304) and at least one pilot symbol of a wideband code division multiple access signal (WCDMA) (page 2, lines 6-14).

As per claims 28 and 30, the prior art discloses a wideband code division multiple access signal (fig. 3), the control signal comprise a transmit diversity signal (page 4, lines 6-18).

As per claim 31, the prior art further discloses (table 1) and (fig. 2) wherein the input signal comprises (fig. 1), a data signal of a primary common control physical channel (pccpch) (page 2, lines 23-29).

***Allowable Subject Matter***

7. Claims 11-12, 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and objection to claim cited above.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014. The examiner can normally be reached on Monday-Friday, 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QG.

September 30, 2006.

  
MOHAMMED GHAYOUR  
SUPERVISORY PATENT EXAMINER